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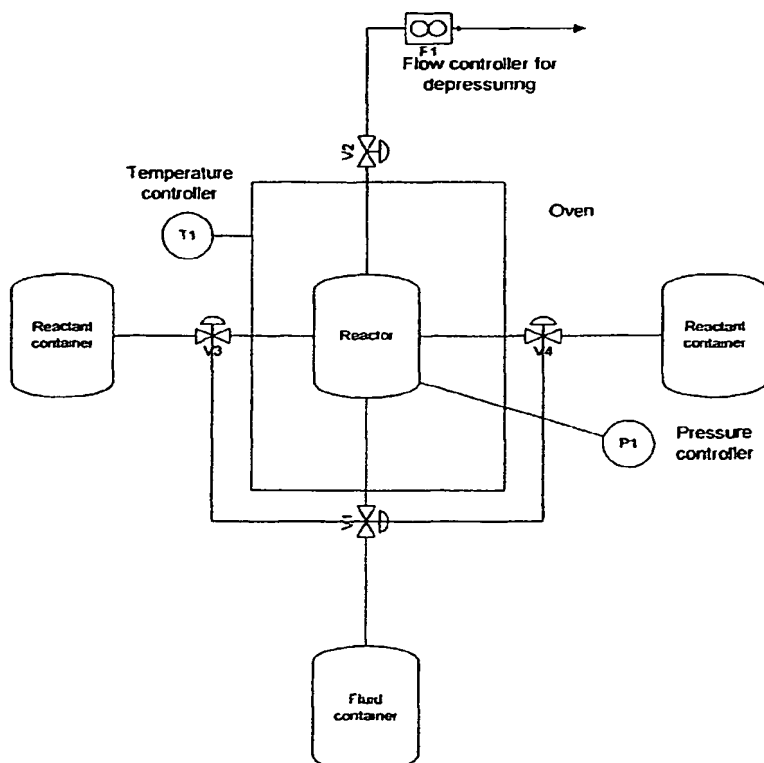
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[Continued on next page]

(54) Title: METHOD FOR PRODUCTION OF A PRODUCT HAVING SUB-MICRON PRIMARY PARTICLE SIZE, PRODUCT PRODUCED BY THE METHOD AND APPARATUS FOR USE OF THE METHOD



(57) Abstract: The invention relates to a method of manufacturing a product having a sub-micron primary particle such as metal oxide, metal oxidhydroxide or metal hydroxide product, said method comprising the steps of: introducing a solid reactor filling material in a reactor, introducing a metal-containing precursor in said reactor, introducing a co-solvent into the said reactor, introducing a supercritical solvent in the said reactor. By these steps a contact between the metal-containing precursor and the co-solvent is established, thus resulting in the formation of said product in the proximity of the said solid reactor filling material. The present invention offers the astonishing possibility of producing anatase phase of TiO₂ at temperatures as low as between 50°C and 100°C and at concurrent pressures of 100-200 bar. The invention also relates to a product such as anatase TiO₂ produced by the method and also relates to an apparatus utilising the method.



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 6 387 341 B1 (GUIZARD CHRISTIAN ET AL) 14 May 2002 (2002-05-14)</p> <p>column 1, line 22 - line 24 column 2, line 6 - line 16 column 3, line 7 - line 26 column 3, line 49 - line 54 column 4, line 23 - line 28 column 4, line 59 - line 61 column 6, line 26 - line 38 column 7, line 1 - line 5 ---</p> <p>-/-</p>	<p>1,2,4,9, 13-15, 19,22, 27-32, 35,50, 64,65, 68,72</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	DATABASE WPI Section Ch, Week 200341 Derwent Publications Ltd., London, GB; Class E33, AN 2003-431452 XP002265725 & CN 1 401 575 A (BIOLOMIC ENVIRONMENT RES CENT CHINESE AC), 12 March 2003 (2003-03-12) abstract ---	1-72
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Information on patent family members

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